Claims

1. An electrical multi-layer component

- having a base body (1)

- containing a stack (1a) of stratified ceramic layers (2) and internal electrodes lying between them (3)

- in which an external electrode (5) is placed on one lateral face (4) of the base body (1), for contacting internal electrodes (3),

- which has the form of a layer,

- and in which at least one indentation (6) is provided.

2. The component as recited in claim 1, wherein the outer electrode (5) has areas (14) with an essentially constant layer thickness (d).

3. The component as recited in one of claims 1 or 2, wherein the outer electrode (5) contains copper.

4. The component as recited in one of claims 1 through 3, wherein the ceramic layers (2) are piezoelectrically active.

5. The component as recited in one of claims 1 through 4,

wherein the indentations (6) run in the form of troughs with longitudinal axes (7), and wherein the projection of the longitudinal axes (7) on the lateral face of the stack (1a) with the outer electrode intersects the internal electrodes (3) at an angle α.

6. The component as recited in one of claims 1 through 5, wherein a plurality of indentations (6) are arranged at equal distances.

7. The component as recited in one of claims 1 through 5, wherein a plurality of indentations (6) are distributed uniformly over the outer electrode (5).

8. The component as recited in one of claims 1 through 5,
wherein a plurality of indentations (6) form a periodically recurring structure.

9. The component as recited in one of claims 1 through 8, wherein the layer thickness (d) in indentations (6) has a local minimum (d_{min}).

10. The component as recited in claim 9, wherein d_{min} is a maximum of 75% of the layer thickness (d).

11. The component as recited in one of claims 1 through 10, wherein the outer electrode (5) is interrupted at the indentations (6).

12. The component as recited in one of claims 1 through 11, wherein the outer electrode (5) is applied in the form of a screen processing paste containing copper powder.

13. The component as recited in one of claims 1 through 12, wherein the indentations (6) have a width (b) of at least 200 μm.

14. A method for producing an electrical multi-layer component with the following steps:

a) production of a base body (1) containing a stack (1a) of stratified ceramic layers (2) and internal electrodes (3) lying between them, wherein attached to the lateral face (4) of the base body (1) there is an outside electrode (5) for contacting internal electrodes (3), having the form of a layer and in which at least one indentation (6) is provided.

b) contacting of the outer electrode (5) with a contact element (12) while exerting a shearing load between the outer electrode (5) and the lateral face (4) of the base body (1).

15. The method as recited in claim 14,

wherein materials with differing thermal expansion coefficients are used for the outer electrode (5) and the ceramic layers (2), and where the contacting of the outer electrode (5) with a contact element (12) takes place by soldering.

16. The method as recited in claim 15,

wherein copper is used for the outer electrode and a PZT ceramic for the ceramic layers, and where wires are attached to the outer electrode (5) by soldering at a temperature > 200° C for contacting the outer electrode (5).